

REMARKS

Claims 1, 3-22, 25-30, 32-51, and 55-60 are pending in the above-identified application, and were rejected. With this Amendment claims 1 and 30 have been amended. Accordingly, claims 1, 3-22, 25-30, 32-51, and 55-60 remain at issue.

I. 35 U.S.C. § 103 Obviousness Rejection of Claims

Claims 1, 3-15, 18-19, 22, 25-30, 32, 33-44, 47-48, 51, and 55-60 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Nafeh (U.S. Patent No. 5,343,251) in view of Nageo et al. (U.S. Patent No. 5,587,927). Claims 16, 20, 21, 45, 49 and 50 were rejected under 35 U.S.C. 103(a) as being unpatentable over Nafeh (U.S. Patent No. 5,343,251) in view of Nageo et al. (US 5,587,927) in further view of Shah-Nazaroff et al. (U.S. Patent No. 6,671,880). Applicants respectfully traverse these rejections.

Applicants wish to thank the Examiner for the courtesies extended during a telephonic interview on May 17, 2007. As discussed in the interview, Applicants have amended independent claims 1 and 30 to more clearly recite that the candidate part detected by the candidate-detecting means is a portion of the input signal. In that regard, prior to the characteristic-extracting means extracting characteristic data, a candidate part, which is a portion of the input signal, is detected, and then the characteristic-extracting means only extracts characteristic data from this portion.

In Nafeh, audio and video signals are decomposed into their components using audio and video decoders, and then these entire components are detected and pre-processed in a pre-processor 22 to extract their essential features. Col. 2, lines 55-62. There is no indication in Nafeh that a candidate part is detected from the input signal prior to extracting features in the

pre-processor, or that the pre-processor is employed on this candidate part of the input signal. Rather, the pre-processing in Nafeh is employed on the entire audio and video signal output. Col. 3, lines 20-24 (“The purpose of this module 22 is to extract efficiently the relevant information or features for the classification task by pre-processing the audio and video signal output of a signal source such as a timer or a VCR into a data stream of features.”). The output from the pre-processor is fed to the classifier module 24 “for signal discerning and pattern classification,” where the artificial neural network described in Nafeh is employed to detect commercial messages. Col. 2, lines 63-65. See also Col. 5, line 30 through Col. 7, line 12.

Thus, unlike claim 1, the pre-processor in Nafeh extracts features from the entire input signal, not a detected candidate part of the input signal, prior to classification. Claim 1, on the other hand, includes a candidate-detecting means for detecting a candidate part and a characteristic-extracting means for extracting characteristic data from this candidate part detected by the candidate-detecting means. Therefore, Nefeh does not disclose this limitation as recited in claim 1. As has been previously explained, Nageo and Shah-Nazaroff similarly do not disclose this limitation, as well as other limitations, of claim 1.

Accordingly, the combination of Nefeh, Nagao, and Shah-Nazaroff do not render the signal processing apparatus of claim 1 obvious. Independent claim 30 has similarly been amended to more clearly recite that the candidate part detected by the candidate-detecting means is a portion of the input signal. Therefore, Applicants respectfully submit that independent claims 1 and 30, and the claims that depend from them, are allowable over the cited art.

II. Conclusion

In view of the above amendments and remarks, Applicants submit that all claims are clearly allowable over the cited prior art, and respectfully request early and favorable notification to that effect.

Respectfully submitted,

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